SENSIA
Rockwell Automation + SLB

Optimizing your measurement operations

MEASUREMENT SURVEILLANCE

INTELLIGENT ACTION

Make smarter decisions with measurement data at your fingertips

At Sensia, we're making the advantages of industrial scale digitalization and seamless automation available to every energy company, delivering a step-change in asset performance and productivity.

Our industry-leading capabilities have been cultivated through nearly four decades at the forefront of high-precision flow computing, metering supervisory and surveillance systems. This has resulted in a global installed base of over 300 metering control systems for allocation, fiscal, and custody transfer applications. Our systems are available for a diverse range of applications spanning oil, gas, new energies to CCUS.

The last 20 years has created a platform allowing us to build around our core TRUST metering supervisory engine, delivering a vast and proven library of calculation blocks ensuring compliance to international standards, whilst developing highly differentiated features such as our dynamic uncertainty calculation engine.

The acceleration of technology is providing an opportunity to connect a wider network of assets allowing operators to gain significant operational advantages from centralization, to data aggregation and real-time use of that information towards predictive maintenance, reduction in financial exposure and asset optimization.

Our Measurement Surveillance system is built around our proven TRUST core engine to deliver a platform which truly digitalizes a measurement network in a highly scalable fashion. Although digital platforms are generally widely available, the difference with Measurement Surveillance is that it is based on a proven double precision platform supported by a library of fiscal calculation blocks. A vendor agnostic system, leveraging a range of highly differentiated features based around a scalable configuration which is optimized for your assets.

Introducing a new era of asset management
Measurement Surveillance has been developed using the Swinton Technology TRUST core engine, leveraging a proven global platform for the surveillance of a diverse range of allocation, fiscal and custody transfer assets.

Measurement Surveillance is a metering Management Information System (MIS) – a solution that provides a complete strategic overview of the status and performance of a company's metering assets. Our solution represents metering data in clear graphical form to quickly and easily illustrate information for key stakeholders such as but not limited to metering technicians, metering engineers and managers, empowering your team to make appropriate and informed operational decisions.

Measurement Surveillance is specifically designed for fiscal accountability, efficiency gains in operation with a view to reducing financial exposure and operational costs. As a vendor agnostic solution this can be tailored to a specific application and scalable over a large range of assets using a modular approach. The ability to acquire and centralize data such as live uncertainty, calibration, validation and a diverse range of condition-based monitoring solutions, Measurement Surveillance offers a comprehensive solution for driving efficiency in operational resources while reducing financial exposure.

MEASUREMENT SURVEILLANCE

Features

Intuitive

With a common visual format for all your different assets, color-coded status map for each region, accessing data from different systems is simple.

Documentation

Provides a central repository facilitating the ease of access to critical documentation for your operations. This includes P&IDs, FDS, data-sheets and drawings.

Inventory

A fully integrated database is available for asset inventory management. This delivers significant advantages such as but not limited to; spares optimization, obsolescence management, upgrades, and potential manufacturer recalls across your network of devices.

Calibration & validation

Provides infrastructure to manage calibration and validation of equipment in accordance with operational and regulatory requirements by delivering user defined workflows. Procedures can also be attached and calibration results recorded. For additional convenience a maintenance scheduler for calibration activities is fully integrated.

Live uncertainty

Using live process data from key contributing measurement components, a dynamic live uncertainty value is calculated for each component and the overall system. This can also be aggregated for a network of assets, increasing operational efficiency and reducing exposure to mismeasurement.

Communications

Modbus client & server
For connecting to field devices and legacy systems with lower bandwidth, Measurement Surveillance supports Modbus over Serial and Ethernet as both Client and Server.

PI WebAPI
To link to Process Information (PI) historians the PI WebAPI is available so that data captured or calculated can be archived using these common tools.

DNP3
We fully support DNP3 protocols for efficient low-bandwidth connectivity between systems in multiple locations.

OPC UA server (3rd party tooling)
We provide an OPC UA server so Measurement Surveillance can share all values with other systems to allow for timely and detailed database access.

OPC DA client & server
Access other databases in remote systems and provide access to remote systems via the complete OPC DA Client and Server capability.

+ Gateway located at remote sites to obtain metering data from various sources and securely and efficiently transmit to the server.

+ Email and SMS notification of specific status conditions.

Systems are designed to meet site-specific domain architectures and IT infrastructure, they can use either Active Directory Account Management or local user accounts. Client-to-server encryption is achieved using SSL (Secure Socket Layer) communication.

Operational benefits

Visibility of data
Relevant staff at a variety of locations can access metering information effortlessly via one efficient, secure and easy-to-use application.

Improved performance
Produces key information at your fingertips, facilitating seamless asset management and efficient performance.

Reduced exposure
Detects issues within the metering asset in real-time – allowing you to take prompt action to reduce exposure and avoid costly corrective investigations.

Reduction in financial exposure
Automated system which readily identifies measurement issues for efficient prioritization and deployment of resources. Issues can be resolved before they become problematic, reducing the risk of downtime.

Low cost of ownership
The Measurement Surveillance user interface runs on any standard web browser, which minimizes the cost of ownership and IT complexity – with no bespoke client software or licensing.

Scalable solution
Measurement Surveillance can be used from single to multi-asset applications. It can be regional, country wide or configured to evaluate assets at a global level.

Personnel training
Personnel training information is available for each system and staff records can be documented to ensure that you have the appropriate staff on site for specific tasks.
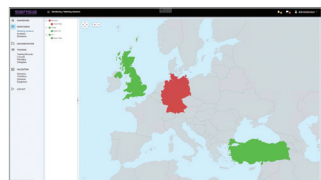
Security of data
With commercially sensitive data being acquired and processed by Measurement Surveillance, we take data and network security very seriously. We follow industry best practice methods for encryption of data in transit and at rest as well as application system performance testing.
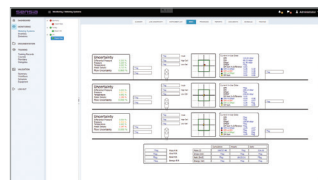
A modular and vendor agnostic, open architecture solution tailored to your operations

Measurement Surveillance has been developed to scale up from single to multiple assets to a countrywide or global view as required. Each of the features shown below can be added in a modular fashion as your operational needs dictate.
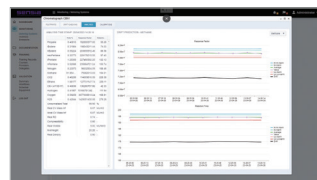
System health indication
Delivering a holistic view of your measurement network whether global, countrywide, regional or a range of assets. Measurement Surveillance can be configured with bespoke rules to determine health status therefore customized to your application requirements, with the ability to drill down to a component of the asset.
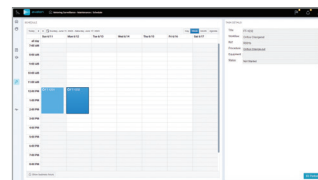
Metering system overview
A graphical P&ID style overview of each metering asset – typically showing totals, flow rates, primary process variables and valve positions.
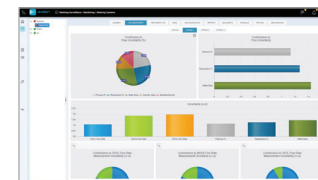
Condition Based Monitoring (CBM)
For a diverse range of components such as but not limited to differential pressure meters, ultrasonic meters, Coriolis meters and analysis.
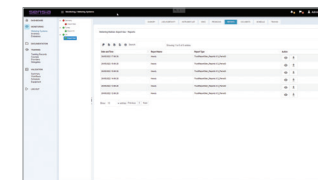
Maintenance activity scheduling
The system ensures that your assets remain compliant with local operational procedures and regulations via a dynamic maintenance activity scheduler.

Live uncertainty
A graphical representation at the stream and system level is presented to provide the uncertainty and any exposure within the asset in mass, volume of energy terms. Where relevant data are available, the uncertainties of each of the components is combined to give the stream and system uncertainties – helping you reduce your exposure to mismeasurement whilst demonstrating system compliance.

Logbook function
To comply with regulatory reporting requirements and provide a clear single history of a metering system, Measurement Surveillance includes a system logbook which includes all the relevant reporting elements for a metering stream. This allows for operational notes and investigation summaries to be safely stored and reviewed.

Graphing function
Measurement Surveillance continuously receives and analyses a large amount of complex metering system data. Get a clearer picture of trends and patterns of system behavior via a graphical display which allows you to focus only on the data of interest over the interval you want to examine with customizable and savable views.

Minimize uncertainty, improve reliability and reduce exposure
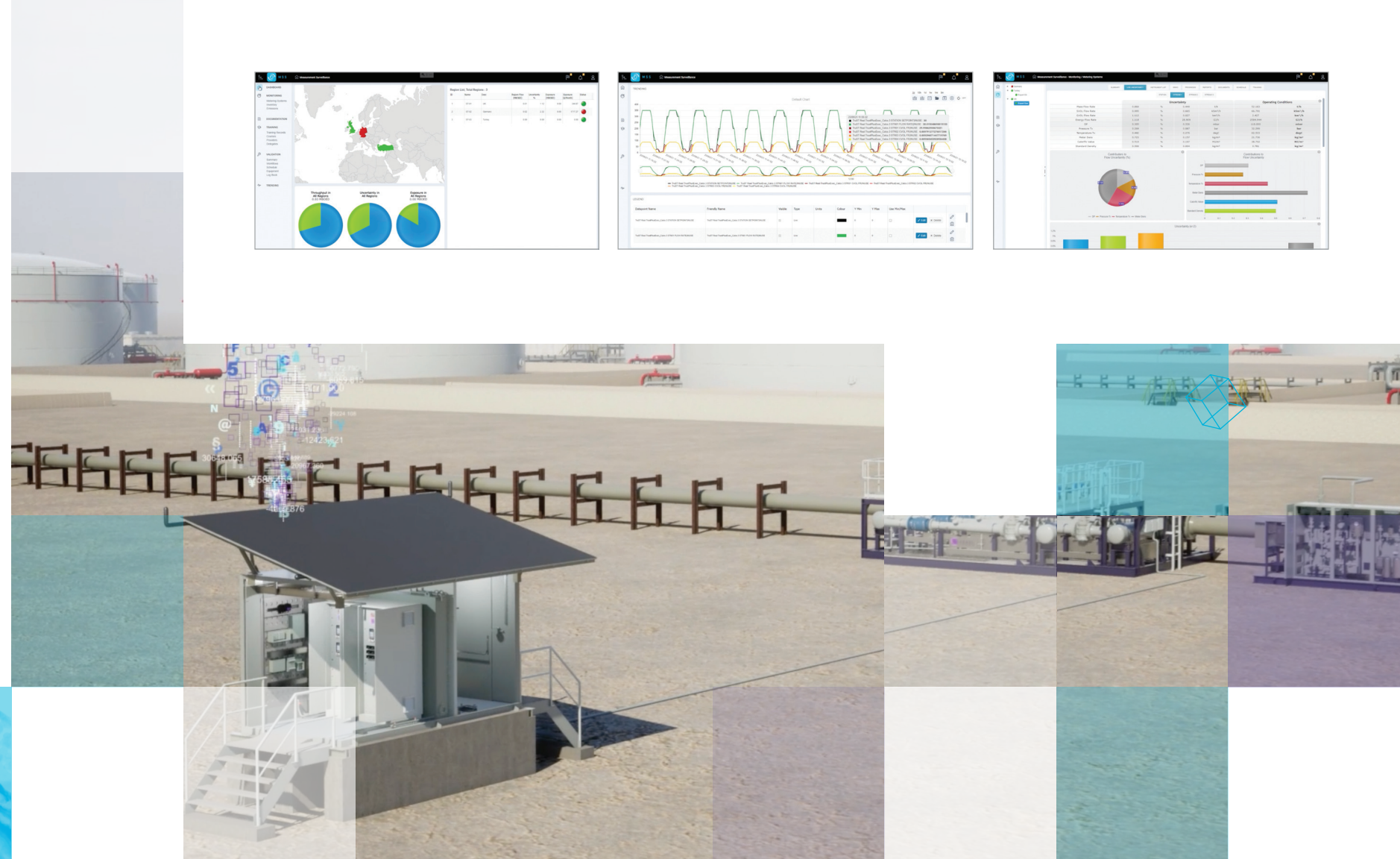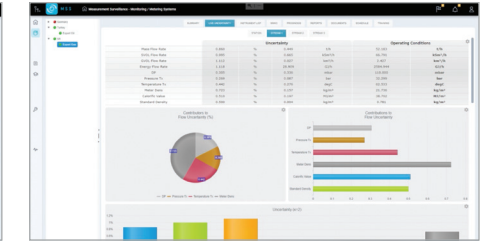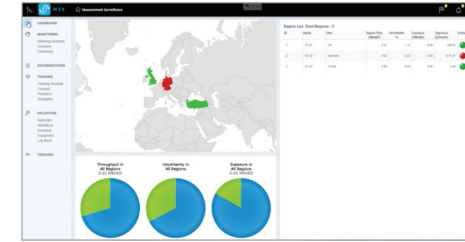
We have a proven track record of working with major operators in the oil and gas sectors to supply high quality, robust and reliable metering control systems.

To create a more secure, productive and profitable tomorrow, we need to take Intelligent Action today. Our digitalization and automation solutions sense, think, control and optimize the energy production process making your operation smarter, safer and more sustainable.

Measurement Surveillance will optimize your operations whilst reducing financial exposure by minimizing the time between detection and correction whilst providing an encrypted audit trail. Through seamless integration, asset monitoring, verification and reporting, Measurement Surveillance will deliver automation and digitalization of your measurement assets, at scale.

Talk to our experts to discover how our Measurement Surveillance software makes managing metering assets simpler by providing you with crucial information that enables informed decisions to be made swiftly and methodically. This saves you from costly maintenance checks and possible downtime.

To find out more about Measurement Surveillance visit:
https://www.sensiaglobal.com/measurement

Solving challenges from the edge to the enterprise. One challenge at a time.

We collaborate with all stakeholders to make the production, transportation and processing of oil & gas simpler, safer, more secure, more productive and better understood from end-to-end. Sensia is making the advantages of industrial-scale digitalization and seamless automation available to every oil & gas company.

Now every asset can operate more productively and more profitably.

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